

3. On the Species of Crowned Cranes. By P. CHALMERS
MITCHELL, M.A., D.Sc., Secretary to the Society.

[Received November 15, 1904.]

(Text-figures 37-40.)

[The complete account of the new species described in this communication appears here; but since the name and preliminary diagnosis were published in the 'Abstract,' the new species is distinguished by the name being underlined.—EDITOR.]

I have had the good fortune to see no less than fifteen living examples of the Crowned Crane in the course of this year, and the obvious differences between two types heretofore included under the name *Balearica pavonina* led me to examine the literature on the subject and the skins in the National Museum, as well as some shown me by private friends, with the result that I believe I am able to make a slight addition to our knowledge of these beautiful birds.

The two major species of this group were figured by George Edwards, the "Library-Keeper" to the Royal College of Physicians, in his 'Natural History of Birds' (vol. iv. p. 192), published in 1751. They were not definitely named but described as the "Crowned African Cranes": the figure in the foreground, which he supposed to be that of the male of a pair, is a good representation of the Cape Crowned Crane; while the other figure, designated the female by Edwards, is an excellent figure of a West-African Crowned Crane. The latter figure shows the darker coloration of the neck and back, and the division of the bare cheek-area into nearly equal white upper and pink lower half characteristic of the West-African form; while the other figure shows the grey coloration of the upper part of the body and the very large pendent neck-wattle equally characteristic of the Cape form. It will be more convenient to group my subsequent remarks under the names of the species.

Balearica regulorum (Benn.). The Cape Crowned Crane.—I follow Reichenow (Die Vögel Afrikas, vol. i. p. 265) in using this name instead of *B. chrysopelargus* of the B.M. Catalogue. The latter name depends on Lichtenstein's 'Catalogus Rerum Naturalium Rarissimarum,' but the specimens on which Lichtenstein founded his descriptions are not known, and the description of *Ardea chrysopelargus* is far too vague to be applied with certainty to this or any other Crowned Crane. I have seen four living examples (of these, three are at present in the Gardens at Regent's Park) and a number of skins. The feathers of the neck and back are silvery grey. The most striking distinctive characters of the four species, however, are to be found in the heads, of which I give outline figures. The large, bare cheek-patch (text-fig. 37, p. 202) is divided into a small, upper, roughly triangular area which is bright red in colour; the lower part of the patch, which usually

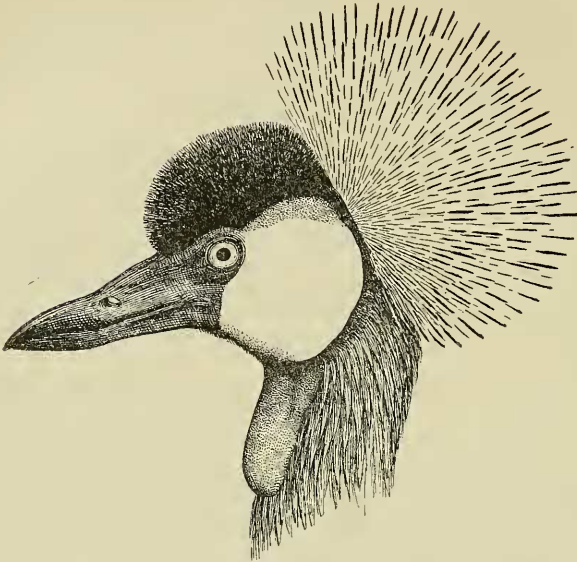
follows the curve of the orbit, is characteristically white in the adult, but may be slightly suffused with pink, as in one of the specimens at the Gardens. Even in that case, however, and in dried specimens from which the colour has faded, the two areas are clearly marked off from one another. The pendent neck-wattle is very large and bright red. The beak is black, and, as in all the others, the part of the head not occupied by the crown is covered with a dense velvety black patch of feathers. The characteristic "crown" in all the species is composed of erect, bristle-like feathers, each of which has a spiral twist. The crown is golden or straw-coloured, but in this species each bristle is tipped with black, and the black often extends a considerable way down the bristles, darkening the crown. On the surface of the skull, in the temporal region, is a pair of very strong bony knobs, described by Mr. Beddard (Proc. Zool. Soc. 1904, vol. ii. p. 131).

This species is widely distributed in South Africa and extends a considerable way northwards in East Africa. Reichenow (*loc. cit.* p. 266) gives its northern range as ceasing with the Pangani River, near Zanzibar. Mr. C. W. Hobley, however, tells me that a Crowned Crane is abundant in Uganda, and has kindly given me the head of a specimen from Kavirondo. This undoubtedly is that of the Cape Crane. Mr. Ogilvie-Grant was kind enough to show me a fine skin from a similar locality which was also that of *B. regulorum*, so that a much more northern range must be associated with this species.

Balearica gibbericeps Reich.—This species is certainly closely allied to *B. regulorum*, and Reichenow in his most recent work does not regard it as more than a variety. I have seen neither living examples nor skins, but reproduce here (text-fig. 38, p. 202), by Dr. Reichenow's kind permission, the figure of the head published in his work 'Deutsch-Ost-Afrika,' Vögel, p. 47. The neck-wattle is large as in the species just described, and the general coloration of the head, neck, and back is similar. The striking difference is the extension forwards and upwards of the bare cheek-patch on either side, so as to invade the black velvety patch in a rounded knob-like process. Various localities are given for this species in the region extending northwards from the Pangani River towards Uganda, but some of these seem ascribed to it on the supposition that the Cape Crowned Crane does not extend northwards of the Pangani. It appears, however, that the two species overlap, and further specimens of *B. gibbericeps* and information about its exact distribution and relation to *B. regulorum* are much to be desired. It is with the hope of obtaining these that I have copied Reichenow's figure and borrowed from his description.

Balearica pavonina (L.). The West-African Crowned Crane.—I have seen seven living specimens and several skins of this species. Five of the living specimens are at present in the Gardens—three brought from Nigeria by Lt.-Col. Jackson, one

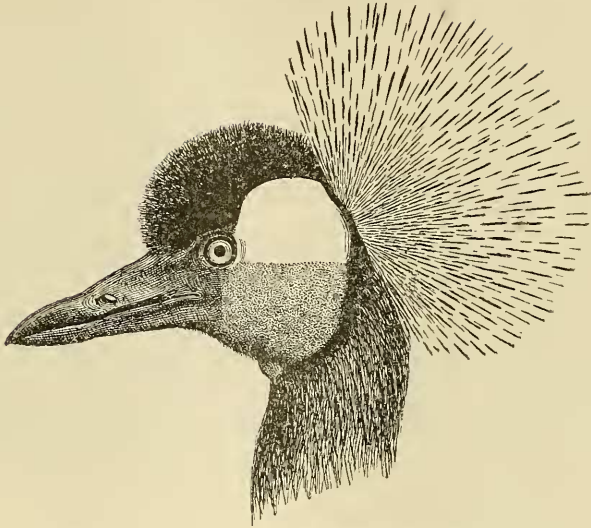
Text-fig. 37.

Head of *Balearica regulorum* (red area of cheek-patch dotted).

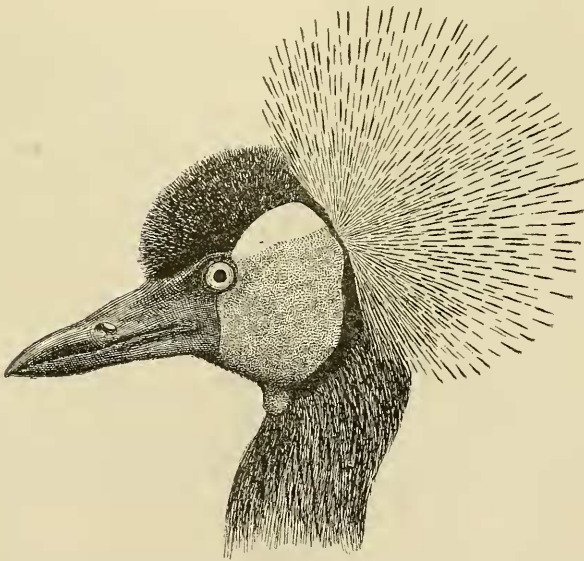
Text-fig. 38.

Head of *Balearica gibbericeps*.

Text-fig. 39.

Head of *Balcarica pavonina* (red area of cheek-patch dotted).

Text-fig. 40.

Head of *Balearica ceciliae* (red area of cheek-patch dotted).

obtained from the same locality by Miss Jardine, and another by Dr. Macfarlane. George Edwards's figure, already referred to, is a representation of this bird. It is as large as *B. regulorum*, but much darker in colour, the neck and back, although really a dark grey, looking almost black in comparison with those of the Cape Crane. The crown is almost identical with that of the latter. The beak is similar, but is horn-coloured towards the tip. The skull has similar, although smaller bony knobs, but is much broader and has a larger cranial capacity. The neck-wattles are red, but, although varying in size, are much smaller than in *B. regulorum*, and are visible only when the bird faces the observer. The bare cheek-patch (text-fig. 39, p. 203) is divided by a nearly horizontal line extending backwards from the middle of the orbit into a smaller upper portion which is white, and a larger lower portion which is red, so that the disposition of the colours is inverted compared with that in *B. regulorum* and *B. gibbericeps*. The range of this species is given by both Reichenow and the B.M. Catalogue as extending from Senegal across to the Upper Nile and Abyssinia. It happens, however, that all the specimens I have seen, alive or in museums, of this type (excluding the type about to be described) belong to the Western portion of this range.

BALEARICA CECILIE Chalmers Mitchell. (The White Nile Crane.)

Balearica cecilie Chalmers Mitchell, Abstr. P. Z. S. 1904, No. 10, p. 13, Nov. 22.

The White Nile Crane appears to be the smallest of the Crowned Cranes as yet known. It is rather darker than the West-African form, and the crown, especially in the living specimens, is paler in colour. The beak is shorter and entirely black; the skull and head are relatively smaller, but the velvety helmet is broader, and temporal bony knobs appear to be absent. The cheek-patches (text-fig. 40, p. 203) are rather more rounded than those of *B. pavonina* and the disposition of colour is similar, but the upper white portion is very much smaller, so that at first sight the whole patch appears to be much redder. The neck-wattles are red, and small as in *B. pavonina*.

Early this year Lady William Cecil deposited in the Gardens in Regent's Park four Crowned Cranes which she had obtained from the White Nile, near Khartoum. At first sight they corresponded with *Balearica pavonina*, and they were registered as examples of that species. On comparing them with our other specimens, however, I saw that they differed, and on pointing out their interest to Lady William Cecil, that lady was kind enough to present two to the Society. On further investigation, I thought it necessary to make these birds the type of a new species, which I propose to associate with the name of the donor. In the somewhat poor collection of skins of Crowned Cranes in the National Museum, I found only two belonging to this region of Africa—one

from Fashoda (Hawker Collection), and one from Aboo Zeit, White Nile, sent by Captain Stanley Flower; and these two were identical specifically with Lady William Cecil's specimens*.

Type in the Gardens of the Zoological Society of London, presented by Lady William Cecil.

Examples of three species have been living throughout the summer and autumn in the same paddock on the canal-bank in the North Garden. The three examples of *B. regulorum* and one example of *B. pavonina* keep together, and the similarity in size is obvious, while the different coloration of the neck and body and of the cheek-patches and the large wattles in the Cape form amply distinguish the species. The two examples of *B. ceciliæ* keep together and away from the others. They are smaller, darker in the body, lighter as to the crowns and conspicuously redder as to the cheeks. It would be unwise to attach too much importance as to the natural grouping of birds in a menagerie, but it is striking that *B. pavonina* consorts with *B. regulorum*, although the specific distinctness of the two has long been admitted, and not with *B. ceciliæ*, with which it has hitherto been confounded.

4. On the Mouse-Hares of the Genus *Ochotona*.

By J. LEWIS BONHOTE, M.A., F.L.S., F.Z.S.

[Received July 18, 1904.]

[The complete account of the new species described in this communication appears here; but since the name and preliminary diagnosis were published in the 'Abstract,' the species is distinguished by the name being underlined.—EDITOR.]

A large and valuable series of *Ochotona* from Kashmir, recently sent home by Col. A. E. Ward, has induced me to take up and study the whole genus, so far as the Palearctic Region is concerned, with the results given below.

Owing to the fact that these animals live in countries difficult to reach and, for the most part, inhospitable, the series of skins is somewhat meagre. Nevertheless I have been enabled to come to certain conclusions which may serve as a basis for the future study of the group.

Exclusive of the American forms, the genus is found in Southern Russia, extending northwards through Persia, Afghanistan, Kashmir, Thibet to N.E. Siberia.

Many of the species are closely allied and some, if not all, have both a summer and a winter pelage. I propose in the first place to divide the genus into three groups, which may be recognised by the shape of the incisive and palatal foramina.

* [Since the reading of this paper, four more Crowned Cranes from the White Nile have been deposited at the Gardens. These are examples of *B. ceciliæ*.]